

WHAT IS CLAIMED IS:

1. An image display unit comprising a cathode  
substrate with an electron source for emitting electrons and  
5 an anode substrate disposed to oppose the cathode substrate,  
wherein the anode substrate has a transparent substrate,  
a grounding section formed on the peripheral edge of the  
transparent substrate, a phosphor layer which is formed on  
the inner surface of the transparent substrate and excited by  
10 electrons emitted from the electron source to emit light, a  
metal back layer to which a high voltage is applied to  
accelerate the electrons, and a high-resistance section which  
is disposed between the metal back layer and the grounding  
section to surround the outer peripheral edge of the metal  
15 back layer; and

wherein the high-resistance section has a surface  
roughness of 1.0 to 15.0  $\mu\text{m}$ .

2. The image display unit according to claim 1,  
wherein the high-resistance section comprises plural  
20 regions with a surface roughness of 1.0 to 15.0  $\mu\text{m}$ , and these  
regions are disposed to increase their surface roughness  
sequentially from the side closer to the outer peripheral  
edge of the metal back layer toward the side away from it.

3. An image display unit comprising a cathode  
25 substrate with an electron source for emitting electrons and  
an anode substrate disposed to oppose the cathode substrate,  
wherein the anode substrate has a transparent substrate,  
a grounding section formed on the peripheral edge of the

transparent substrate, a phosphor layer which is formed on the inner surface of the transparent substrate and excited by electrons emitted from the electron source to emit light, a metal back layer to which a high voltage is applied to  
5 accelerate the electrons, and a high-resistance section which is disposed between the metal back layer and the grounding section to surround the outer peripheral edge of the metal back layer; and

wherein the high-resistance section has a high-  
10 resistance coating layer with a surface resistivity of  $1 \times 10^9$  to  $1 \times 10^{15} \Omega/\square$  (square; the same is applied below).

4. The image display unit according to claim 3,  
wherein the high-resistance section has a rough surface section with a surface roughness of 1.0 to 15.0  $\mu\text{m}$ , and the  
15 high-resistance coating layer is formed on the rough surface section.

5. The image display unit according to claim 3 or claim 4, wherein the high-resistance section comprises plural regions having a high-resistance coating layer with a surface  
20 resistivity of  $1 \times 10^9$  to  $1 \times 10^{15} \Omega/\square$ , and these regions are disposed to increase their surface resistivity sequentially from the side closer to the outer peripheral edge of the metal back layer toward the side away from it.